

FCC ID: CKEJHP-520  
2.1033(c)9 ALIGNMENT

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## ALIGNMENTS

## 1 General

The JHP-520/500 VHF Air Band Transceiver is aligned at the factory. Do not change the settings rashly because it can cause problems. Make alignments carefully according to the following procedures.

## 2 Alignments Procedures

### 2.1 Equipment Necessary for Alignments

Table 1-1

| No. | Equipment                           | Performance                  | Number of Units |
|-----|-------------------------------------|------------------------------|-----------------|
| 1   | Communication analyzer              | HP8920A                      | 1               |
| 2   | Audio-frequency oscillator (AF OSC) | HP8904A (Function generator) | 1               |
| 3   | Signal generator (SG)               | 2019A (Marconi)              | 1               |
| 4   | DC power supply                     | 12V 3A                       | 1               |
| 5   | Digital voltmeter                   |                              | 1               |
| 6   | Printer                             |                              | 1               |

### 2.2 Order of Alignments

Make alignments of the following three units separately:

RF unit CMN-571

AF unit CAB-781

CPU unit CMC-1086

Then, assemble the units and make overall alignments.

The output voltages of the signal generator designated in the alignment procedures are open voltages (emf). (However, they are voltages across a  $50\Omega$  terminating load in measurement of the sensitivity.)

### 2.2.1 RF Unit CMN-571 Alignments

| Item to Align                        | Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Set Value                                                               |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 1. VCO voltage alignment             | <ol style="list-style-type: none"> <li>1) Connect the digital voltmeter to TP 303 (TP312).</li> <li>2) Set the frequency to 136.975 MHz. Adjust CV303 so that the VCO voltage is 3.5 V in the receiving state.</li> <li>3) Set the frequency to 118 MHz. Check that the VCO voltage is <math>1.7 \pm 0.7</math> V in the receiving state.</li> <li>4) Set the frequency at 117.975 MHz. Adjust CV302 so that the VCO voltage is 3.5 V in the receiving state.</li> </ol>                                                                                               | $3.5 \pm 0.1V$<br><br>$3.5 \pm 0.1V$                                    |
| 2. VCO voltage check                 | <ol style="list-style-type: none"> <li>1) Remove jumper pin JP301 from J304.</li> <li>2) Connect the digital voltmeter to TP 303 (TP312).</li> <li>3) Set the frequency to 118 MHz. Check that the VCO voltage is <math>1.2 \pm 0.7</math> V in the transmit mode.</li> </ol>                                                                                                                                                                                                                                                                                          |                                                                         |
| 3. Transmit bias alignment           | <ol style="list-style-type: none"> <li>1) Connect the ammeter to J304.</li> <li>2) Hold pin 21 of J302 to Low to switch off the power to the VCO. Disconnect UNLOCK (J1 28) of the CPU unit from the RF unit and hold it to Low.</li> <li>3) Set the frequency to 127.5 MHz. Adjust RV303 so that the ammeter reads <math>10 \text{ mA} \pm 5 \text{ mA}</math> during the no-modulation transmission. Adjust RV304 so that the ammeter <math>\uparrow</math> <math>30 \text{ mA} \pm 5 \text{ mA}</math> during the no-modulation transmission. <br/>reads</li> </ol> | $10 \text{ mA} \pm 5 \text{ mA}$                                        |
| 4. Transmit carrier output alignment | <ol style="list-style-type: none"> <li>1) Attach jumper pin JP301 to J304.</li> <li>2) Hold pin 21 of J302 to High.</li> <li>3) Set the frequency to 127.5 MHz. Adjust RV302 so that the voltage is <math>1250 \text{ mW} \pm 50 \text{ mW}</math> during the no-modulation transmission.</li> </ol>                                                                                                                                                                                                                                                                   | $30 \text{ mA} \pm 5 \text{ mA}$<br>$1250 \text{ mW} \pm 50 \text{ mW}$ |
| 5. Frequency alignment               | <ol style="list-style-type: none"> <li>1) Set the frequency to 127.5 MHz. Transmit without modulation.</li> <li>2) Adjust CV301 so that the transmit frequency is 127.5 MHz.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                | $127.5 \text{ MHz} \pm 100 \text{ Hz}$                                  |

| Item to Align                  | Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Set Value |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 6. RF tuning circuit alignment | <div data-bbox="570 346 1198 625" data-label="Diagram"> </div> <ol style="list-style-type: none"> <li>1) Connect the spectrum analyzer as shown in the above.</li> <li>2) Set the spectrum analyzer as below:<br/> CF : 118 MHz<br/> SPAN : 100 MHz<br/> TG level : -30 dBm<br/> Input ATT : 10 dB </li> <li>3) Adjust RV301 so that TP311 is <math>3.3\text{ V} \pm 0.5\text{ V}</math>. Then, adjust LV301 to LV304 so that the ripple is 5 dB or smaller throughout the RF tuned band (5 MHz). Make this alignment at 108 MHz, and check that the ripple is 5 dB or smaller at 125 MHz and 136.975 MHz.</li> </ol> |           |
| 7. Sensitivity check           | <div data-bbox="339 1129 1373 1608" data-label="Figure"> </div> <ol style="list-style-type: none"> <li>1) Set the output of the signal generator to <math>3\text{ dB}\mu</math> (with termination), 30% modulation with 1kHz modulating frequency, and 118 MHz. Input the signal to the ANT terminal. (Set the unit to 118 MHz, too.)</li> <li>2) Switch on and off the modulation, and check that S/N is 6 dB or greater.</li> </ol>                                                                                                                                                                                 |           |

| Item to Align                | Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Set Value |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 8. A G C<br>voltage<br>check | 1) Connect the digital voltmeter to TP302 (TP311).<br>2) Set the frequency to 136.975 MHz. Input the following signal from the antenna:<br>Frequency : 136.975 MHz<br>Level : 30 dB $\mu$<br>Modulating frequency : 1 kHz<br>Percentage modulation : 30%<br>3) Adjust RV301 so that the voltage at TP311 is 3.0 V $\pm$ 0.1 V.<br>4) Set the AF level to 20 dBm. Change the level of the signal generator from 20 dB $\mu$ to 100 dB $\mu$ and check that the AF level is within 20 dBm $\pm$ 3 dB. |           |

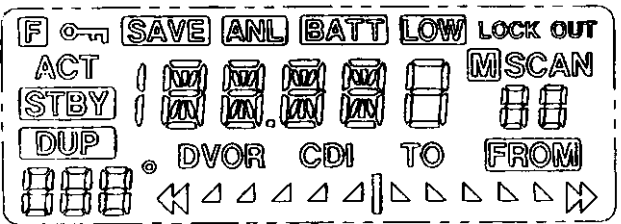
## 2.2.2 AF Unit CAB-781 Alignments

(CPU unit and RF unit are necessary for the alignment of the AF unit)

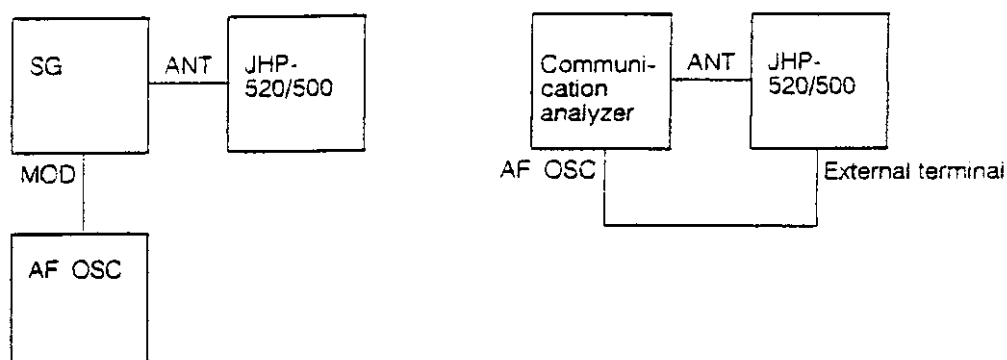
| Item to Align                 | Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Set Value    |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 1 . V O R alignment           | <p>1) Set the frequency to 108 MHz. Input the following VOR signal from the antenna:<br/> Signal generator level : +30 dB<math>\mu</math> , AM 60% (1 KHz)<br/> Phase : 0°<br/> VOR signal : 30Hz modulation<br/> 9960Hz modulation<br/> 30Hz FM 480Hz modulation</p> <p>2) Input the demodulated signal from the RF unit to pin 8 of J301.</p> <p>3) Connect the oscilloscope to pins 1 and 2 of P101.</p> <p>4) Adjust RV101 so that the wave at pin 2 of P101 has about 1 to 1 duty. (Rough alignment)</p> <p>5) Adjust RV101 so that the display angle is 180° <math>\pm</math> 1° in the TOdisplay in the VOR mode.</p> <pre> graph LR     SG[SG] --- ANT[ANT] --- CMN571[CMN-571] --- CAB781[CAB-781]     SG --- MOD[MOD] --- AFOSC[AF OSC]     CAB781 --- CMC1086[CMC-1086] </pre> | 180° $\pm$ 1 |
| 2. Microphon e gain alignment | <p>1) Input the following signal of the audio-frequency oscillator between pins 33 and 34 of P101:<br/> Frequency : 1 kHz<br/> Level : -47 dBm<br/> Termination : 600<math>\Omega</math></p> <p>2) Connect the level meter to pin 11 of J103. Turn RV104 and RV105 to check that the level changes as you turn them. Then, set the variable resistors to their middle position.</p> <p>3) Check that the level is within the range of 0.5 V to 1.0 V (rms).</p> <pre> graph LR     CROSC[CR OSC] --- MIC[MIC] --- CAB781[CAB-781] </pre>                                                                                                                                                                                                                                                  |              |

### 2.2.3 CPU Unit CMC-1086 Alignment

Error 3 is displayed when the power is supplied to the CPU unit for the first time after it is made. This is because of initialization of EEPROM, not a defect in the CPU unit.

| Item to Align  | Procedure                                                                                                                                                                                                                                 | Set Value |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1. LCD         | <p>1) All elements of the LCD are turned on just after the power supply to the CPU unit is turned on. Check the LCD for a defect during this time.</p>  |           |
| 2. Backlight   | <p>1) Ground pin 6 of J1 for at least 200 ms. Check that the backlights of the LCD and keypad illuminate.</p> <p>2) Ground pin 6 of J1 for at least 200 ms again. Check that the backlights of the LCD and keypad go off.</p>             |           |
| 3. Keypad keys | <p>1) Press keys on the keypad, and check that the display on the LCD changes as you press them.</p>                                                                                                                                      |           |

## 2.3 JHP-520/500 Overall Alignments



| Item to Align                | Procedure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Set Value                                                    |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 1. VOR alignment             | 1) Set the frequency to 108 MHz. Input the following VOR signal from the antenna:<br>Signal generator level : +30 dB $\mu$ , AM 60% (1 kHz)<br>Phase : 0°<br>VOR signal : 30Hz modulation<br>9960Hz modulation<br>30Hz FM 480Hz modulation<br><br>2) Adjust RV101 so that the display angle is 180° $\pm$ 1° in TO in the VOR mode.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 180 $\pm$ 1°                                                 |
| 2. Microphone gain alignment | 1) Input the following signal of the audio-frequency oscillator to pin 12 of external terminal J601.<br>Frequency : 1 kHz<br>Level : -47 dBm<br>Termination : 600 $\Omega$<br><br>2) Adjust RV104 so that the percentage modulation is maximum.<br>3) Adjust RV105 so that the percentage modulation is 75%.<br>4) Adjust RV104 so that the percentage modulation is 60%.<br>5) Set the audio-frequency oscillator signal level to -27 dBm. Adjust RV105 so that the percentage modulation is 90%.<br>6) Set the audio-frequency oscillator signal level to -47 dBm. Adjust RV104 so that the percentage modulation is 60%.<br>7) Check that the distortion ratio is 10% or less.<br><br>8) Set the audio-frequency oscillator signal level to -27 dBm. Check that the percentage modulation is 85% to 95%, and the distortion ratio is 15% or less. | 75% $\pm$ 2%<br>60% $\pm$ 2%<br>90% $\pm$ 2%<br>60% $\pm$ 2% |



CPU UNIT (CMC-1086)

| PART NO | PART NAME              | DESCRIPTION              | MATERIAL NO |
|---------|------------------------|--------------------------|-------------|
| C1      | CAP, FXD TAN (CASE B2) | 33UF/6.3V                | 110-0354-00 |
| C2      | CAP, FXD CER (0603)    | 0.1U 25V Y5V             | 110-0045-00 |
| C3      | CAP, FXD CER (0603)    | 1000PF 50V X7R           | 110-0016-00 |
| C4      | CAP, FXD CER (0603)    | 4P 50V NPO               | 110-0096-00 |
| C5      | CAP, FXD CER (0603)    | 18P 50V NPO              | 110-0065-00 |
| C8      | CAP, FXD TAN(CASE A)   | 1UF/25V                  | 110-0367-00 |
| C9      | CAP, FXD CER (0603)    | 0.01UF X7R 50V K         | 110-0027-00 |
| C10     | CAP, FXD CER (0603)    | 0.01UF X7R 50V K         | 110-0027-00 |
| C11     | CAP, FXD CER (0603)    | 0.01UF X7R 50V K         | 110-0027-00 |
| C13     | CAP, FXD CER (0603)    | 1000PF X7R 50V K         | 110-0016-00 |
| C14     | CAP, FXD CER (0603)    | 1000PF X7R 50V K         | 110-0016-00 |
| C15     | CAP, FXD TAN(CASE A)   | 1UF/25V                  | 110-0367-00 |
| C16     | CAP, FXD CER (0603)    | 100P NPO 50V J           | 110-0051-00 |
| C17     | TAN, CAP TAN (CASE A)  | 10UF/16V                 | 110-0372-00 |
| CD1     | LED                    | CL220YG-C-T              | 130-0140-00 |
| CD2     | LED                    | CL220YG-C-T              | 130-0140-00 |
| CD3     | LED                    | SML310MT                 | 130-0107-00 |
| CD4     | LED                    | SML310MT                 | 130-0107-00 |
| CD10    | DIODE                  | 1SS352-TPH3              | 130-0158-00 |
| CD11    | DIODE                  | 1SS352-TPH3              | 130-0158-00 |
| CD12    | DIODE                  | 1SS352-TPH3              | 130-0158-00 |
| CD13    | DIODE                  | 1SS352-TPH3              | 130-0158-00 |
| CD14    | DIODE                  | 1SS352-TPH3              | 130-0158-00 |
| CD5     | LED                    | SML310MT                 | 130-0107-00 |
| CD6     | LED                    | SML310MT                 | 130-0107-00 |
| CD7     | LED                    | SML310MT                 | 130-0107-00 |
| CD15    | DIODE                  | DUMMY                    | 130-0159-00 |
| CD19    | ZENER DIODE            | DTZ7.5B                  | 130-0160-00 |
| IC1     | IC                     | MB89657A                 | 140-0260-00 |
| IC2     | IC                     | 24LC08BI/SN              | 140-0017-00 |
| IC3     | IC                     | NJM062V-T1               | 140-0261-00 |
| IC4     | IC                     | PST575D                  | 140-0262-00 |
| J1      | CONNECTOR              | FH12-40S-0.5SV           | 200-0069-00 |
| LCD1    | INDICATOR              | WK-TZA043-FH-A           | 161-0012-00 |
| P1      | RUBBER CONNECTOR       | 40*2.3*2.7 for LCD using | 204-0003-00 |
| PC1     | PCB                    | JRC CPU PL-266AA         | 260-0203-00 |
| PC2     | PCB                    | JRC KEY PAD PL-267AA     | 260-0204-00 |
| R1      | RESISTOR FXD (0603)    | 3.3K 1/16W J             | 100-0058-00 |
| R2      | RESISTOR FXD (0603)    | 33K 1/16W J              | 100-0065-00 |
| R3      | RESISTOR FXD (0603)    | 1.0K 1/16W J             | 100-0042-00 |
| R4      | RESISTOR FXD (0603)    | 20K 1/16W J              | 100-0048-00 |
| R5      | RESISTOR FXD (0603)    | 20K 1/16W J              | 100-0048-00 |
| R6      | RESISTOR FXD (0603)    | 20K 1/16W J              | 100-0048-00 |
| R7      | RESISTOR FXD (0603)    | 20K 1/16W J              | 100-0048-00 |
| R8      | RESISTOR FXD (0603)    | 20K 1/16W J              | 100-0048-00 |
| R9      | RESISTOR FXD (0603)    | 20K 1/16W J              | 100-0048-00 |
| R10     | RESISTOR FXD (0603)    | 10K 1/16W J              | 100-0027-00 |
| R11     | RESISTOR FXD (0603)    | 10K 1/16W J              | 100-0027-00 |
| R12     | RESISTOR FXD (0603)    | 10K 1/16W J              | 100-0027-00 |
| R13     | RESISTOR FXD (0603)    | 10K 1/16W J              | 100-0027-00 |
| R14     | RESISTOR FXD (0603)    | 10K 1/16W J              | 100-0027-00 |
| R15     | RESISTOR FXD (0603)    | 470K 1/16W J             | 100-0073-00 |
| R16     | RESISTOR FXD (0603)    | 470K 1/16W J             | 100-0073-00 |
| R17     | RESISTOR FXD(0603)     | 470K 1/16W J             | 100-0073-00 |
| R18     | RESISTOR FXD (0603)    | 470 OHM 1/16W J          | 100-0074-00 |
| R19     | RESISTOR FXD (0603)    | 100 OHM 1/16W J          | 100-0026-00 |
| R20     | RESISTOR FXD (0603)    | 100 OHM 1/16W J          | 100-0026-00 |
| R21     | RESISTOR FXD (0603)    | 100 OHM 1/16W J          | 100-0026-00 |
| R22     | RESISTOR FXD (0603)    | 10K 1/16W J              | 100-0027-00 |
| R23     | RESISTOR FXD (0603)    | 10K 1/16W J              | 100-0027-00 |

| PART NO | PART NAME           | DESCRIPTION      | MATERIAL NO |
|---------|---------------------|------------------|-------------|
| R24     | RESISTOR FXD (0603) | 10K 1/16W J      | 100-0027-00 |
| R31     | NC                  |                  |             |
| R32     | NC                  |                  |             |
| R34     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R35     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R36     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R37     | RESISTOR FXD (0603) | 4.7K 1/16W J     | 100-0070-00 |
| R38     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R39     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R40     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R41     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R42     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R43     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R44     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R45     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R46     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| R47     | RESISTOR FXD (0603) | 1K 1/16W J       | 100-0042-00 |
| R48     | RESISTOR FXD (0603) | 47K 1/16W J      | 100-0075-00 |
| TR1     | TRANSISTOR          | UN9211-(TX)      | 131-0159-00 |
| TR2     | TRANSISTOR          | 2SB1115          | 131-0160-00 |
| X1      | CRYSTAL             | SX-1 4.9152MHz   | 150-0036-00 |
| R49     | RESISTOR FXD (0603) | 1K 1/16W J       | 100-0042-00 |
| R50     | RESISTOR FXD (0603) | 0 OHM 1/16W J    | 100-0021-00 |
| R51     | RESISTOR FXD (0603) | DUMMY            |             |
| R52     | RESISTOR FXD (0603) | 0 OHM 1/16W J    | 100-0021-00 |
| MIC1    | MICPHONE C-MOS      | MK-001 ECM-10f6  | 232-0002-00 |
| SP1     | SPEAKER             | 36f, 8 ohm, 0.5W | 230-0009-00 |

| PART NO | PART NAME            | DESCRIPTION        | MATERIAL NO |
|---------|----------------------|--------------------|-------------|
| C101    | CAP, FXD CER(0603)   | Y5V, 0.1U, 25V     | 110-0045-00 |
| C102    | CAP, FXD CER(0603)   | Y5V, 0.1U, 25V     | 110-0045-00 |
| C103    | CAP, FXD CER(1206)   | CH472J50PT         | 110-0501-00 |
| C104    | CAP, FXD CER(0603)   | Y5V 0.1U 25V Z     | 110-0045-00 |
| C105    | CAP, FXD CER(0603)   | X7R 1000PF 50V K   | 110-0016-00 |
| C106    | CAP, FXD CER(0603)   | X7R 2200PF 25V K   | 110-0029-00 |
| C108    | CAP, FXD CER(0603)   | X7R 50V 0.01UF K   | 110-0027-00 |
| C109    | CAP, FXD TAN(CASE A) | 1UF 25V            | 110-0367-00 |
| C110    | CAP, FXD CER(0603)   | 0.01UF 50V X7R K   | 110-0027-00 |
| C111    | CAP, FXD CER(0603)   | 0.01UF 50V X7R K   | 110-0027-00 |
| C112    | CAP, FXD CER(0603)   | 0.01UF 50V X7R K   | 110-0027-00 |
| C113    | CAP, FXD CER(0603)   | Y5V 0.1U 25V Z     | 110-0045-00 |
| C114    | CAP, FXD CER(0603)   | Y5V 0.1U 25V Z     | 110-0045-00 |
| C115    | CAP, FXD CER(0603)   | Y5V 0.1U 25V Z     | 110-0045-00 |
| C117    | CAP, FXD CER(0603)   | NPO 390PF 50V J    | 110-0187-00 |
| C118    | CAP, FXD CER(0603)   | NPO 680PF 25V J    | 110-0002-00 |
| C119    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C120    | CAP, FXD TAN(CASE A) | 10U 25V            | 110-0372-00 |
| C121    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C122    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C123    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C124    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C126    | CAP, FXD TAN(CASE A) | 10U 25V            | 110-0372-00 |
| C127    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C128    | CAP, FXD TAN(CASE A) | 1UF 25V            | 110-0367-00 |
| C129    | CAP, FXD TAN(CASE A) | 1UF 25V            | 110-0367-00 |
| C134    | CAP, FXD TAN(CASE A) | 4.7UF/16V          | 110-0497-00 |
| C135    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C136    | CAP, FXD CER(0603)   | 1000PF 50V X7R K   | 110-0016-00 |
| C137    | CAP, FXD CER(0603)   | 0.1UF 25V Y5V Z    | 110-0045-00 |
| C138    | CAP, FXD CER(0603)   | 1000PF 50V X7R K   | 110-0016-00 |
| C139    | CAP, FXD CER(0603)   | 10PF 50V NPO D     | 110-0054-00 |
| C140    | CAP, FXD CER(0603)   | 47PF 50V NPO J     | 110-0094-00 |
| C141    | CAP, FXD TAN(CASE B) | 47UF 6.3V          | 110-0404-00 |
| C142    | CAP, FXD CER(0603)   | 1000PF 50V X7R K   | 110-0016-00 |
| C145    | CAP, FXD ELEC(SMD)   | 100UF/16V          | 110-0397-00 |
| C146    | CAP, FXD CER(0603)   | 100PF 50V NPO J    | 110-0051-00 |
| C150    | CAP, FXD TAN(CASE A) | 1U 25V             | 110-0367-00 |
| C151    | CAP, FXD TAN(CASE A) | 1U 25V             | 110-0367-00 |
| C152    | CAP, FXD TAN(CASE A) | 1U 25V             | 110-0367-00 |
| C153    | CAP, FXD TAN(CASE A) | 1000PF 16V         | 110-0366-00 |
| C154    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C156    | CAP, FXD CER(0603)   | 47PF 50V NPO J     | 110-0094-00 |
| C157    | CAP, FXD TAN(CASE A) | 4.7UF 16V          | 110-0497-00 |
| C159    | CAP, FXD TAN(CASE A) | 10U 16V            | 110-0366-00 |
| C164    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C165    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C168    | CAP, FXD CER(0603)   | 1000PF 50V X7R K   | 110-0016-00 |
| C170    | CAP, FXD TAN(CASE A) | 10U 16V            | 110-0366-00 |
| C171    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C173    | CAP, FXD ELEC DIP    | 100U 16V M6.5*5RV2 | 110-0420-00 |
| C174    | CAP, FXD CER(0603)   | 0.01UF 50V X7R K   | 110-0027-00 |
| C175    | CAP, FXD TAN(CASE A) | 47U 6.3V           | 110-0404-00 |
| C176    | CAP, FXD CER(0603)   | 0.01U 50V Y5V Z    | 110-0027-00 |
| C177    | CAP, FXD CER(0603)   | 1000PF 50V X7R K   | 110-0016-00 |
| C178    | CAP, FXD CER(0603)   | 0.01UF 50V X7R K   | 110-0027-00 |
| C179    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C180    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C181    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |
| C182    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z     | 110-0045-00 |

| PART NO | PART NAME            | DESCRIPTION      | MATERIAL NO |
|---------|----------------------|------------------|-------------|
| C183    | CAP, FXD CER(0603)   | 1500P 50V X7R K  | 110-0014-00 |
| C184    | CAP, FXD CER(0603)   | 3900P 50V X7R K  | 110-0507-00 |
| C185    | CAP, FXD CER(0603)   | 220PF 50V NPO J  | 110-0072-00 |
| C186    | CAP, FXD TAN(CASE A) | 1000PF 16V       | 110-0366-00 |
| C187    | CAP, FXD TAN(CASE A) | 1U 25V           | 110-0367-00 |
| C188    | CAP, FXD TAN(CASE A) | 1U 25V           | 110-0367-00 |
| C189    | CAP, FXD TAN(CASE A) | 0.22UF 25V       | 110-0359-00 |
| C190    | CAP, FXD CER         | 47UF 16V         | 131-0108-00 |
| C193    | CAP, FXD CER(0603)   | 0.1U 25V Y5V Z   | 110-0045-00 |
| C194    | CAP, FXD CER(0603)   | 1000PF 50V X7R K | 110-0016-00 |
| C195    | CAP, FXD CER(0603)   | 1000PF 50V X7R K | 110-0016-00 |
| C196    | CAP, FXD CER(0603)   | 0.1UF 25V Y5V Z  | 110-0045-00 |
| C197    | CAP, FXD CER(0603)   | 0.1UF 25V Y5V Z  | 110-0045-00 |
| C198    | CAP, FXD CER(0603)   | 0.1UF 25V Y5V Z  | 110-0045-00 |
| C199    | CAP, FXD CER(0603)   | 1000PF 50V X7R K | 110-0016-00 |
| C201    | CAP, FXD TAN(CASE A) | 4.7U 16V         | 110-0497-00 |
| CD101   | DIODE                | HSM198S-TR       | 130-0161-00 |
| CD102   | DIODE                | SMB/D0-214A/SD2  | 130-0108-00 |
| CD103   | DIODE                | HSM198S-TR       | 130-0161-00 |
| CD104   | DIODE                | 1SS301           | 130-0162-00 |
| CD109   | DIODE                | DAO23 SLM-1251MW | 130-0077-00 |
| IC101   | IC                   | NJM2211M-T1      | 140-0263-00 |
| IC102   | IC                   | NJM064V-T1       | 140-0264-00 |
| IC103   | IC                   | TK15210M-TL      | 140-0265-00 |
| IC104   | IC                   | NJM064V-T1       | 140-0264-00 |
| IC105   | IC                   | TA7368F          | 140-0143-00 |
| IC107   | IC                   | TA7330F-SO-EL    | 140-0266-00 |
| IC109   | IC                   | NJM062V-T1       | 140-0261-00 |
| IC110   | IC                   | S-81250SGUP      | 140-0133-00 |
| IC111   | IC                   | M5237 SOT-89     | 140-0062-00 |
| IC112   | IC                   | TK15210M-TL      | 140-0265-00 |
| IC113   | IC                   | TC4S66F          | 140-0152-00 |
| J101    | CONNECTOR            | FH12-40S-0.55V   | 200-0069-00 |
| PC101   | PCB                  | JRC AF PL-268AA  | 260-0202-00 |
| R101    | RESISTOR FXD(0603)   | 47K              | 100-0075-00 |
| R102    | RESISTOR FXD(0603)   | DUMMY            | 100-0073-00 |
| R103    | RESISTOR FXD(0603)   | 470K             | 100-0025-00 |
| R104    | RESISTOR FXD(0603)   | 100K             | 100-0050-00 |
| R105    | RESISTOR FXD(0603)   | 220K             | 100-0040-00 |
| R106    | RESISTOR FXD(0603)   | 18K              | 100-0032-00 |
| R107    | RESISTOR FXD(0603)   | 12K              | 100-0025-00 |
| R108    | RESISTOR FXD(0603)   | 100K             | 100-0051-00 |
| R109    | RESISTOR FXD(0603)   | 220 OHM          | 100-0078-00 |
| R110    | RESISTOR FXD(0603)   | 5.6K             | 100-0075-00 |
| R111    | RESISTOR FXD(0603)   | 47K              | 100-0075-00 |
| R112    | RESISTOR FXD(0603)   | 47K              | 100-0075-00 |
| R113    | RESISTOR FXD(0603)   | 47K              | 100-0075-00 |
| R114    | RESISTOR FXD(0603)   | 47K              | 100-0075-00 |
| R115    | RESISTOR FXD(0603)   | DUMMY            | 100-0025-00 |
| R116    | RESISTOR FXD(0603)   | 100K             | 100-0070-00 |
| R117    | RESISTOR FXD(0603)   | 4.7K             | 100-0035-00 |
| R118    | RESISTOR FXD(0603)   | 150K             | 100-0025-00 |
| R119    | RESISTOR FXD(0603)   | 100K             | 100-0025-00 |
| R121    | RESISTOR FXD(0603)   | DUMMY            | 100-0052-00 |
| R122    | RESISTOR FXD(0603)   | 10K              | 100-0027-00 |
| R123    | RESISTOR FXD(0603)   | 100K             | 100-0025-00 |
| R124    | RESISTOR FXD(0603)   | 10K              | 100-0027-00 |
| R125    | RESISTOR FXD(0603)   | 3.3K             | 100-0058-00 |
| R126    | RESISTOR FXD(0603)   | 100K             | 100-0025-00 |
| R127    | RESISTOR FXD(0603)   | 100K             | 100-0025-00 |
| R128    | RESISTOR FXD(0603)   | 100K             | 100-0025-00 |

| PART NO | PART NAME          | DESCRIPTION | MATERIAL NO |
|---------|--------------------|-------------|-------------|
| R129    | RESISTOR FXD(0603) | 470K        | 100-0073-00 |
| R130    | RESISTOR FXD(0603) | 27K         | 100-0055-00 |
| R131    | RESISTOR FXD(0603) | 33K         | 100-0065-00 |
| R132    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R133    | RESISTOR FXD(0603) | 100K        | 100-0025-00 |
| R134    | RESISTOR FXD(0603) | DUMMY       |             |
| R135    | RESISTOR FXD(0603) | 100K        | 100-0025-00 |
| R137    | RESISTOR FXD(0603) | 4.7K        | 100-0070-00 |
| R138    | RESISTOR FXD(0603) | 330K        | 100-0063-00 |
| R143    | RESISTOR FXD(0603) | 1K          | 100-0042-00 |
| R144    | RESISTOR FXD(0603) | 33K         | 100-0065-00 |
| R145    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R146    | RESISTOR FXD(0603) | 2.2K        | 100-0044-00 |
| R147    | RESISTOR FXD(0603) | 100 OHM     | 100-0026-00 |
| R148    | RESISTOR FXD(0603) | 1K          | 100-0042-00 |
| R153    | RESISTOR FXD(0603) | 0 OHM       | 100-0021-00 |
| R154    | RESISTOR FXD(0603) | 10K         | 100-0027-00 |
| R156    | RESISTOR FXD(0603) | 4.7K        | 100-0070-00 |
| R161    | RESISTOR FXD(0603) | 1.0K        | 100-0042-00 |
| R162    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R163    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R164    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R165    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R170    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R171    | RESISTOR FXD(0603) | 470K        | 100-0073-00 |
| R172    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R175    | RESISTOR FXD(0603) | 10K         | 100-0027-00 |
| R176    | RESISTOR FXD(0603) | 1.8K        | 100-0024-00 |
| R179    | RESISTOR FXD(0603) | 18K         | 100-0040-00 |
| R180    | RESISTOR FXD(0603) | 1.0K        | 100-0042-00 |
| R181    | RESISTOR FXD(0603) | 100K        | 100-0025-00 |
| R182    | RESISTOR FXD(0603) | 470 OHM     | 100-0074-00 |
| R183    | RESISTOR FXD(0603) | 1.0K        | 100-0042-00 |
| R184    | RESISTOR FXD(0603) | 100K        | 100-0025-00 |
| R185    | RESISTOR FXD(0603) | 100K        | 100-0025-00 |
| R186    | RESISTOR FXD(0603) | 100K        | 100-0025-00 |
| R187    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R188    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R189    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R190    | RESISTOR FXD(0603) | 100K        | 100-0025-00 |
| R194    | RESISTOR FXD(0603) | 0 OHM       | 100-0021-00 |
| R195    | RESISTOR FXD(0603) | 0 OHM       | 100-0021-00 |
| R200    | RESISTOR FXD(0603) | 0 OHM       | 100-0021-00 |
| R201    | RESISTOR FXD(0603) | 0 OHM       | 100-0021-00 |
| R202    | RESISTOR FXD(0603) | DUMMY       |             |
| R203    | RESISTOR FXD(0603) | 5.6K        | 100-0078-00 |
| R205    | RESISTOR FXD(0603) | 100K        | 100-0025-00 |
| R206    | RESISTOR FXD(0603) | 47K         | 100-0075-00 |
| R207    | RESISTOR FXD(0603) | 180K        | 100-0038-00 |
| R208    | RESISTOR FXD(0603) | 180K        | 100-0038-00 |
| R209    | RESISTOR FXD(0603) | 22K         | 100-0052-00 |
| R211    | RESISTOR FXD(0603) | 10K         | 100-0027-00 |
| R212    | RESISTOR FXD(0603) | 330 OHM     | 100-0064-00 |
| R214    | RESISTOR FXD(0603) | 2.2K        | 100-0044-00 |
| R215    | RESISTOR FXD(0603) | 10K         | 100-0027-00 |
| R216    | RESISTOR FXD(0603) | 330 OHM     | 100-0064-00 |
| R217    | RESISTOR FXD(0603) | 220 OHM     | 100-0051-00 |
| R218    | RESISTOR FXD(0603) | 3.3K        | 100-0058-00 |
| R219    | RESISTOR FXD(0603) | 1K          | 100-0042-00 |
| R220    | RESISTOR FXD(0603) | 470 OHM     | 100-0074-00 |
| RV101   | RESISTOR VAR       | 5K          | 102-0020-00 |
| RV102   | DUMMY              |             |             |

| PART NO    | PART NAME                   | DESCRIPTION             | MATERIAL NO |
|------------|-----------------------------|-------------------------|-------------|
| RV103      | RESISTOR VAR                | EVM1YSX50B14 10K        | 101-0002-01 |
| RV104      | RESISTOR VAR                | EVM1YSX50B14 10K        | 101-0002-01 |
| RV105      | RESISTOR VAR                | EVM1YSX50B14 10K        | 101-0002-01 |
| RV106      | RESISTOR VAR                | EVM1XSX50B13 1K         | 101-0002-00 |
| TR101      | TRANSISTOR                  | UN9119-(TX)             | 131-0161-00 |
| TR102      | TRANSISTOR                  | UN9211-(TX)             | 131-0159-00 |
| TR103      | TRANSISTOR                  | UN9211-(TX)             | 131-0159-00 |
| TR105      | TRANSISTOR                  | 2SB1115                 | 131-0160-00 |
| TR109      | TRANSISTOR                  | UN9211-(TX)             | 131-0159-00 |
| TR111      | TRANSISTOR                  | UN9119-(TX)             | 131-0161-00 |
| TR112      | TRANSISTOR                  | UN9211-(TX)             | 131-0159-00 |
| TR113      | TRANSISTOR                  | 2SB1182F(Q)             | 131-0155-00 |
| TR118      | TRANSISTOR                  | UN9119-(TX)             | 131-0161-00 |
| TR119      | TRANSISTOR                  | UN9211-(TX)             | 131-0159-00 |
| TR123      | TRANSISTOR                  | UMZIN                   | 131-0162-00 |
| TR124      | TRANSISTOR                  | UN9211-(TX)             | 131-0159-00 |
| TR125      | TRANSISTOR                  | UN9119-(TX)             | 131-0161-00 |
| SW104      | ROTARY SWITCH               | EC09P20-64B             | 220-0016-00 |
| VR101+S101 | RESISTOR VAR                | 10K(A) RK09711111020    | 102-0008-00 |
| W201       | CONNECTOR                   | PC BOARS F.P.C PL-128AA | 212-0019-00 |
| W204       | CONNECTOR                   | 8PIN                    | 200-0071-00 |
| W202       | VR                          | 10K(A)                  | 102-0019-00 |
| PC102      | FUNCTION KEY PCB            |                         | 260-0210-00 |
| PC103      | PTT KEY PCB                 |                         | 260-0211-00 |
| S102       | F(P67) FUNCTION TACT SWITCH |                         | 220-0023-00 |
| S103       | PTT TACT SWITCH             |                         | 220-0024-00 |
| PC104      | VOLUME/PWR PCB              |                         | 260-0212-00 |
| PC105      | SQUELCH VR PCB              |                         | 260-0213-00 |
| PC106      | CH SWITCH PCB               |                         | 260-0214-00 |

| PART NO | PART NAME        | DESCRIPTION | MATERIAL NO |
|---------|------------------|-------------|-------------|
| C301    | CAP, FXD CER     | 22PF 50V    | 110-0074-00 |
| C302    | CAP, FXD CER     | 10PF 50V    | 110-0054-00 |
| C303    | CAP, FXD CER     | 47PF 50V    | 110-0094-00 |
| C304    | CAP, FXD CER     | 5PF 50V     | 110-0104-00 |
| C305    | CAP, FXD CER     | 39PF 50V    | 110-0087-00 |
| C306    | CAP, FXD CER     | 5PF 50V     | 110-0104-00 |
| C307    | CAP, FXD CER     | 18PF 50V    | 110-0065-00 |
| C308    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C309    | CAP, FXD CER     | 18PF 50V    | 110-0065-00 |
| C310    | CAP, FXD CER     | 18PF 50V    | 110-0065-00 |
| C311    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C312    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C313    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C314    | CAP, FXD CER     | DUMMY       | 110-0016-00 |
| C316    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C317    | CAP, FXD CER     | 8P          | 110-0111-00 |
| C318    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C319    | CAP, FXD CER     | 4PF 50V     | 110-0096-00 |
| C320    | CAP, FXD CER     | 3PF 50V     | 110-0088-00 |
| C321    | CAP, FXD CER     | 4PF 50V     | 110-0096-00 |
| C322    | CAP, FXD CER     | DUMMY       | 110-0083-00 |
| C323    | CAP, FXD CER     | 33PF 50V    | 110-0083-00 |
| C324    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C325    | CAP, FXD CER     | 8P          | 110-0111-00 |
| C326    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C327    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C328    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C329    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C330    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C331    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C332    | CAP, FXD CER     | DUMMY       | 110-0094-00 |
| C333    | CAP, FXD CER     | 47PF 50V    | 110-0094-00 |
| C334    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C335    | CAP, FXD CER     | 8P          | 110-0111-00 |
| C336    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C337    | CAP, FXD CER     | 4PF 50V     | 110-0096-00 |
| C338    | CAP, FXD CER     | 3PF 50V     | 110-0088-00 |
| C339    | CAP, FXD CER     | 4PF 50V     | 110-0096-00 |
| C340    | CAP, FXD CER     | DUMMY       | 110-0083-00 |
| C341    | CAP, FXD CER     | 33PF 50V    | 110-0083-00 |
| C342    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C343    | CAP, FXD CER     | 8P          | 110-0111-00 |
| C344    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C345    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C346    | CAP, FXD CER     | 1000PF 50V  | 110-0016-00 |
| C347    | CAP, FXD CER     | 10PF 50V    | 110-0054-00 |
| C348    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C349    | CAP, FXD CER     | 22PF 50V    | 110-0074-00 |
| C350    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C351    | CAP, FXD CER     | DUMMY       | 110-0088-00 |
| C352    | CAP, FXD CER     | 3PF 50V     | 110-0088-00 |
| C353    | CAP, FXD CER     | DUMMY       | 110-0088-00 |
| C354    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C355    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C356    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C357    | CAP, FXD CER     | 27PF 50V    | 110-0074-00 |
| C358    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C359    | CAP, FXD CER     | 0.01UF 50V  | 110-0027-00 |
| C360    | CAP, FXD CER     | 0.1UF 25V   | 110-0045-00 |
| C361    | CAP, TAN(CASE A) | 10U 16V     | 110-0366-00 |

| PART NO | PART NAME         | DESCRIPTION   | MATERIAL NO |
|---------|-------------------|---------------|-------------|
| C362    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C363    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C364    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C365    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C366    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C367    | CAP, FXD CER      | 120PF 50V     | 110-0506-00 |
| C368    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C369    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C370    | CAP, TAN(CASE A)  | 10UF 16V      | 110-0366-00 |
| C371    | CAP, TAN(CASE A)  | 10UF 16V      | 110-0366-00 |
| C372    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C373    | CAP, FXD CER      | 2200PF 50V    | 110-0029-00 |
| C374    | CAP, FXD CER      | 0.01UF 50V    | 110-0027-00 |
| C375    | CAP, FXD CER      | 1800PF 50V    | 110-0118-00 |
| C376    | CAP, FXD CER      | 1800PF 50V    | 110-0118-00 |
| C377    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C378    | CAP, CER (0805)   | 2.2UF         | 110-0393-00 |
| C379    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C380    | CAP, CER (0805)   | 1UF 16V Y5V Z | 110-0169-00 |
| C381    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C382    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C383    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C384    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C385    | CAP, TAN (CASE A) | 10UF 16V      | 110-0366-00 |
| C386    | CAP, TAN (CASE A) | 10UF 16V      | 110-0366-00 |
| C387    | CAP, TAN (CASE A) | 1UF 25V       | 110-0367-00 |
| C388    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C389    | CAP, FXD CER      | 7PF 50V       | 110-0108-00 |
| C390    | CAP, FXD CER      | 5PF 50V       | 110-0104-00 |
| C391    | CAP, FXD CER      | 0.5PF 50V     | 110-0046-00 |
| C392    | CAP, FXD CER      | 0.01UF 50V    | 110-0027-00 |
| C393    | CAP, FXD CER      | 15PF 50V      | 110-0062-00 |
| C394    | CAP, TAN (CASE A) | 10U 16V       | 110-0366-00 |
| C395    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C396    | CAP, FXD CER      | 2PF 50V       | 110-0079-00 |
| C397    | CAP, FXD CER      | 5PF 50V       | 110-0104-00 |
| C398    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C399    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C400    | CAP, FXD CER      | 6PF 50V       | 110-0106-00 |
| C401    | CAP, FXD CER      | 6PF 50V       | 110-0106-00 |
| C403    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C404    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C405    | CAP, FXD CER      | DUMMY         | 110-0096-00 |
| C406    | CAP, FXD CER      | 4PF 50V       | 110-0096-00 |
| C407    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C408    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C409    | CAP, FXD CER      | 4PF 50V       | 110-0096-00 |
| C410    | CAP, FXD CER      | 4PF 50V       | 110-0096-00 |
| C412    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C413    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C414    | CAP, FXD CER      | 2PF 50V       | 110-0079-00 |
| C415    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C416    | CAP, FXD CER      | 100PF 50V     | 110-0051-00 |
| C417    | CAP, FXD CER      | 2PF 50V       | 110-0079-00 |
| C418    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C419    | CAP, FXD CER      | 5PF 50V       | 110-0104-00 |
| C420    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C421    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C422    | CAP, FXD CER      | 0.1UF 25V     | 110-0045-00 |
| C423    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C424    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |
| C425    | CAP, FXD CER      | 1000PF 50V    | 110-0016-00 |



| PART NO | PART NAME         | DESCRIPTION     | MATERIAL NO |
|---------|-------------------|-----------------|-------------|
| C426    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C427    | CAP, TAN (CASE A) | 10UF 16V        | 110-0366-00 |
| C428    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C429    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C430    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C431    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C432    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C433    | CAP, TAN (CASE A) | 1UF 25V M       | 110-0367-00 |
| C434    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C435    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C436    | CAP, TAN (CASE A) | 10UF 16V        | 110-0366-00 |
| C437    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C438    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C439    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C440    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C441    | CAP, FXD CER      | 0.01UF 50V      | 110-0027-00 |
| C442    | CAP, FXD CER      | 15PF 50V        | 110-0062-00 |
| C444    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C445    | CAP, FXD CER      | 22PF 50V        | 110-0074-00 |
| C446    | CAP, TAN (CASE A) | 10UF 16V        | 110-0366-00 |
| C447    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C448    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C449    | CAP, FXD CER      | 15PF 50V        | 110-0062-00 |
| C450    | CAP, FXD CER      | 10PF 50V        | 110-0054-00 |
| C451    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C452    | CAP, FXD CER      | 0.01UF 50V      | 110-0027-00 |
| C453    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C454    | CAP, FXD CER      | 4PF 50V         | 110-0096-00 |
| C455    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C456    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C457    | CAP, ELEC DIP     | 10UF 16V 4**5mm | 110-0269-00 |
| C458    | CAP, ELEC DIP     | 10UF 16V 4**5mm | 110-0269-00 |
| C459    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C460    | CAP, ELEC DIP     | 10UF 16V        | 110-0269-00 |
| C461    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C462    | CAP, FXD CER      | 4PF 50V         | 110-0096-00 |
| C463    | CAP, FXD CER      | 0.1UF 25V       | 110-0045-00 |
| C464    | CAP, CER (CASE A) | 1UF             | 110-0367-00 |
| C465    | CAP, FXD CER      | 470PF 50V       | 110-0001-00 |
| C466    | CAP, FXD CER      | 0.1UF 25V       | 110-0045-00 |
| C467    | CAP, CER (CASE A) | 1UF             | 110-0367-00 |
| C469    | CAP, FXD CER      | 0.1UF 25V       | 110-0045-00 |
| C470    | CAP, CER (CASE A) | 1UF             | 110-0367-00 |
| C471    | CAP, FXD CER      | 0.1UF 25V       | 110-0045-00 |
| C472    | CAP, FXD TAN      | 1UF             | 110-0367-00 |
| C473    | CAP, FXD CER      | 12PF 50V        | 110-0059-00 |
| C474    | CAP, FXD CER      | 12PF 50V        | 110-0059-00 |
| C475    | CAP, FXD CER      | 15PF 50V        | 110-0062-00 |
| C476    | CAP, FXD CER      | 0.1UF 25V       | 110-0045-00 |
| C477    | CAP, FXD CER      | 150P            | 110-0061-00 |
| C482    | CAP, FXD CER      | 0.01UF 50V      | 110-0027-00 |
| C483    | CAP, FXD CER      | 0.01UF 50V      | 110-0027-00 |
| C484    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C485    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C488    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C489    | CAP, FXD CER      | 1000PF 50V      | 110-0016-00 |
| C490    | CAP, TAN (CASE A) | 10UF 16V        | 110-0366-00 |
| C491    | CAP, TAN (CASE B) | 47UF 6.3V       | 110-0404-00 |
| C492    | CAP, FXD CER      | 27PF 50V        | 110-0074-00 |
| C494    | CAP, FXD CER      | 10PF 50V        | 110-0054-00 |
| C495    | CAP, FXD CER      | 12PF 50V        | 110-0059-00 |
| C497    | CAP, FXD CER      | 7PF 50V         | 110-0108-00 |

| PART NO | PART NAME         | DESCRIPTION                          | MATERIAL NO |
|---------|-------------------|--------------------------------------|-------------|
| C498    | CAP, FXD CER      | DUMMY                                |             |
| C499    | CAP, FXD CER      | DUMMY                                |             |
| C500    | CAP, FXD CER      | 0.01UF 50V                           | 110-0027-00 |
| C501    | CAP, FXD CER      | 0.01UF 50V                           | 110-0027-00 |
| C502    | CAP, FXD CER      | 7PF 50V                              | 110-0108-00 |
| C503    | CAP, FXD CER      | 18PF 50V                             | 110-0065-00 |
| C600    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| C601    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| C602    | CAP, FXD CER      | 22PF 50V                             | 110-0074-00 |
| C603    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| C604    | CAP, FXD CER      | 27PF 50V                             | 110-0077-00 |
| C605    | CAP, FXD CER      | 27PF 50V                             | 110-0077-00 |
| C606    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| C607    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| C608    | CAP, TAN (CASE A) | 10UF 16V                             | 110-0366-00 |
| C609    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| C610    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| C611    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| C612    | CAP, FXD CER      | 33PF 50V                             | 110-0083-00 |
| C613    | CAP, TAN (CASE A) | 10UF 16V                             | 110-0366-00 |
| C614    | CAP, FXD CER      | 1000PF 50V                           | 110-0016-00 |
| CD301   | DIODE             | RLS-135/TE11                         | 130-0101-00 |
| CD302   | DIODE             | RLS-135/TE11                         | 130-0101-00 |
| CD303   | DIODE             | MA304-TX                             | 130-0163-00 |
| CD304   | DIODE             | MA304-TX                             | 130-0163-00 |
| CD305   | DIODE             | MA304-TX                             | 130-0163-00 |
| CD306   | DIODE             | MA304-TX                             | 130-0163-00 |
| CD307   | DIODE             | DAN235U/T-106                        | 130-0050-00 |
| CD308   | DIODE             | DAN235U/T-106                        | 130-0050-00 |
| CD309   | DIODE             | 1SS352-TPH3                          | 130-0158-00 |
| CD310   | DIODE             | 1SS352-TPH3                          | 130-0158-00 |
| CD311   | DIODE             | 1SS352-THP3                          | 130-0158-00 |
| CD312   | DIODE             | MA362-TX                             | 130-0088-00 |
| CD313   | DIODE             | MA362-TX                             | 130-0088-00 |
| CD314   | DIODE             | DAF236U/T-106                        | 130-0170-00 |
| CD315   | DIODE             | DAN235U/T-106                        | 130-0050-00 |
| CD316   | DIODE             | 1SS352-TPH3                          | 130-0158-00 |
| CD317   | DIODE             | 1SS352-TPH3                          | 130-0158-00 |
| CD318   | DIODE             | 1SS352-THP3                          | 130-0158-00 |
| CD319   | DIODE             | 1SS315-TE85L                         | 130-0025-00 |
| CD320   | DIODE             | 1SS300                               | 130-0167-00 |
| CD322   | DIODE             | 1SS315-TE85L                         | 130-0025-00 |
| CD321   | DIODE             | 1SS301-TE85L                         | 130-0166-00 |
| CV301   | CAPACITOR VAR     | CTC038-20RSM 20PF                    | 111-0003-03 |
| CV302   | CAPACITOR VAR     | CTC038-06RSM 6PF                     | 111-0003-01 |
| CV303   | CAPACITOR VAR     | 3PFCCTC038-03RSM                     | 111-0003-00 |
| FL301   | CRYSTAL CKT       | (FL-A,FL-B) 21.7MHZ                  | 152-0039-00 |
| FL302   | CERAMIC FILTER    | SFGCG450BX-TX                        | 152-0040-00 |
| FL303   | FILTER            | SFFC450D-TC01                        | 152-0041-00 |
| IC301   | IC                | MB1504PF                             | 140-0083-00 |
| IC302   | IC                | TK10930V-TL                          | 140-0267-00 |
| IC303   | IC                | NJM064V-T1                           | 140-0264-00 |
| IC307   | IC                | MB511PF-G                            | 140-0268-00 |
| J301    | ANT JACK          |                                      |             |
| J303    | JACK              | EXT MIC 2.5 $\phi$ EXT SP 3.5 $\phi$ | 200-0024-00 |
| J304    | JACK              | 1*2P F=2.0mm 180D                    | 200-0073-00 |
| J305    | JACK              | 1*2P F=2.0mm 180D                    | 200-0073-00 |
| J304-1  | SHORT PIN         |                                      | 200-0039-00 |
| J305-1  | SHORT PIN         |                                      | 200-0039-00 |
| L301    | SPRING COIL       | AR 050335B                           | 124-0026-00 |
| L302    | SPRING COIL       | AR 050335B                           | 124-0026-00 |
| L303    | SPRING COIL       | AR 050335B                           | 124-0026-00 |

| PART NO | PART NAME       | DESCRIPTION                                    | MATERIAL NO |
|---------|-----------------|------------------------------------------------|-------------|
| L304    | INDUCTOR (0805) | 47NH                                           | 126-0027-00 |
| L305    | INDUCTOR (1008) | 2.2UH                                          | 126-0026-00 |
| L306    | INDUCTOR (1008) | 2.2UH                                          | 126-0026-00 |
| L307    | INDUCTOR (1008) | 2.2UH                                          | 126-0026-00 |
| L308    | INDUCTOR (0805) | 15NH                                           | 126-0027-10 |
| L310    | INDUCTOR (0805) | 15NH                                           | 126-0027-10 |
| L312    | INDUCTOR        | 0.22UH                                         | 126-0027-11 |
| L313    | INDUCTOR        | 0.22UH                                         | 126-0027-11 |
| L314    | INDUCTOR        | 0.1UH                                          | 126-0027-09 |
| L315    | INDUCTOR        | LQH1N1R0K04                                    | 126-0037-00 |
| L321    | INDUCTOR        | 27NH                                           | 126-0027-19 |
| L323    | COIL            | 120NH                                          | 126-0032-00 |
| L324    | INDUCTOR (0805) | 47NH                                           | 126-0027-12 |
| L325    | COIL            | 120NH                                          | 126-0032-00 |
| L326    | SPRING COIL     | AR 050335B                                     | 124-0026-00 |
| L331    | INDUCTOR        | LQH1N2R2K04                                    | 126-0038-00 |
| LD301   | FERRITE BEAD    | BLM21B050S                                     | 123-0031-00 |
| LD302   | BEAD CORE       | $\phi 2.5 \times \phi 1.0 \times 3.0\text{mm}$ | 123-0030-00 |
| LD303   | FERRITE BEAD    | BLM21B050S                                     | 123-0031-00 |
| LD304   | BEAD CORE       | $\phi 2.5 \times \phi 1.0 \times 3.0\text{mm}$ | 123-0030-00 |
| LV301   | INDUCTOR        | 56NH (0805)                                    | 126-0027-13 |
| LV302   | INDUCTOR        | 56NH (0805)                                    | 126-0027-13 |
| LV303   | INDUCTOR        | 56NH (0805)                                    | 126-0027-13 |
| LV304   | INDUCTOR        | 56NH (0805)                                    | 126-0027-13 |
| PC301   | PCB             | JRC RF PL-265AA                                | 260-0209-00 |
| R301    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R302    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R303    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R304    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R305    | RESISTOR FXD    | 43K                                            | 100-0464-00 |
| R306    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R307    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R308    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R309    | RESISTOR FXD    | 43K                                            | 100-0464-00 |
| R310    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R311    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R312    | RESISTOR FXD    | 470K                                           | 100-0073-00 |
| R313    | RESISTOR FXD    | DUMMY                                          | 100-0051-00 |
| R314    | RESISTOR FXD    | 220 OHM                                        | 100-0051-00 |
| R315    | RESISTOR FXD    | 47 OHM                                         | 100-0076-00 |
| R316    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R317    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R318    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R319    | RESISTOR FXD    | 43K                                            | 100-0464-00 |
| R320    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R321    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R322    | RESISTOR FXD    | 47K                                            | 100-0075-00 |
| R323    | RESISTOR FXD    | 43K                                            | 100-0464-00 |
| R324    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R325    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R326    | RESISTOR FXD    | 150K                                           | 100-0035-00 |
| R327    | RESISTOR FXD    | 100K                                           | 100-0025-00 |
| R328    | RESISTOR FXD    | 390 OHM                                        | 100-0068-00 |
| R329    | RESISTOR FXD    | 3.3K                                           | 100-0058-00 |
| R330    | RESISTOR FXD    | 47 OHM                                         | 100-0076-00 |
| R331    | RESISTOR FXD    | 0 OHM                                          | 100-0021-00 |
| R332    | RESISTOR FXD    | 220 OHM                                        | 100-0051-00 |
| R333    | RESISTOR FXD    | 220 OHM                                        | 100-0051-00 |
| R334    | RESISTOR FXD    | 470K                                           | 100-0073-00 |
| R335    | RESISTOR FXD    | 330 OHM                                        | 100-0064-00 |
| R336    | RESISTOR FXD    | 220 OHM                                        | 100-0051-00 |
| R337    | RESISTOR FXD    | 220 OHM                                        | 100-0051-00 |

| PART NO | PART NAME    | DESCRIPTION | MATERIAL NO |
|---------|--------------|-------------|-------------|
| R338    | RESISTOR FXD | 47 OHM      | 100-0076-00 |
| R339    | RESISTOR FXD | 47 OHM      | 100-0076-00 |
| R340    | RESISTOR FXD | 2.2K        | 100-0044-00 |
| R341    | RESISTOR FXD | 1.5K        | 100-0023-00 |
| R342    | RESISTOR FXD | 1K          | 100-0042-00 |
| R343    | RESISTOR FXD | 10K         | 100-0027-00 |
| R344    | RESISTOR FXD | 5.6K        | 100-0078-00 |
| R345    | RESISTOR FXD | 4.7K        | 100-0070-00 |
| R346    | RESISTOR FXD | 10K         | 100-0027-00 |
| R347    | RESISTOR FXD | 1K          | 100-0042-00 |
| R348    | RESISTOR FXD | 10K         | 100-0027-00 |
| R349    | RESISTOR FXD | 10K         | 100-0027-00 |
| R350    | RESISTOR FXD | 68K         | 100-0089-00 |
| R351    | RESISTOR FXD | 4.7K        | 100-0070-00 |
| R352    | RESISTOR FXD | 8.2K        | 100-0092-00 |
| R353    | RESISTOR FXD | DUMMY       | 100-0076-00 |
| R354    | RESISTOR FXD | 47 OHM      | 100-0076-00 |
| R355    | RESISTOR FXD | 18K         | 100-0040-00 |
| R356    | RESISTOR FXD | 820 OHM     | 100-0094-00 |
| R357    | RESISTOR FXD | 390K        | 100-0067-00 |
| R358    | RESISTOR FXD | 4.7K        | 100-0070-00 |
| R359    | RESISTOR FXD | 1K          | 100-0042-00 |
| R360    | RESISTOR FXD | 330K        | 100-0063-00 |
| R362    | RESISTOR FXD | 47K         | 100-0075-00 |
| R363    | RESISTOR FXD | 470K        | 100-0073-00 |
| R364    | RESISTOR FXD | 470K        | 100-0073-00 |
| R365    | RESISTOR FXD | 470K        | 100-0073-00 |
| R366    | RESISTOR FXD | 470K        | 100-0073-00 |
| R367    | RESISTOR FXD | DUMMY       | 100-0073-00 |
| R368    | RESISTOR FXD | 0 OHM       | 100-0021-00 |
| R369    | RESISTOR FXD | 0 OHM       | 100-0021-00 |
| R370    | RESISTOR FXD | 100K        | 100-0025-00 |
| R371    | RESISTOR FXD | 100K        | 100-0025-00 |
| R372    | RESISTOR FXD | 1M          | 100-0043-00 |
| R373    | RESISTOR FXD | 100K        | 100-0025-00 |
| R374    | RESISTOR FXD | 1M          | 100-0043-00 |
| R375    | RESISTOR FXD | 47K         | 100-0075-00 |
| R376    | RESISTOR FXD | 33K         | 100-0065-00 |
| R377    | RESISTOR FXD | 0 OHM       | 100-0021-00 |
| R378    | RESISTOR FXD | 0 OHM       | 100-0021-00 |
| R379    | RESISTOR FXD | 47K         | 100-0075-00 |
| R380    | RESISTOR FXD | 4.7K        | 100-0070-00 |
| R381    | RESISTOR FXD | 2.7K        | 100-0047-00 |
| R382    | RESISTOR FXD | 2.2K        | 100-0044-00 |
| R383    | RESISTOR FXD | 330 OHM     | 100-0064-00 |
| R384    | RESISTOR FXD | 47 OHM      | 100-0076-00 |
| R385    | RESISTOR FXD | 10 OHM      | 100-0028-00 |
| R386    | RESISTOR FXD | 47K         | 100-0075-00 |
| R387    | RESISTOR FXD | 1K          | 100-0042-00 |
| R388    | RESISTOR FXD | 47 OHM      | 100-0076-00 |
| R389    | RESISTOR FXD | 47K         | 100-0075-00 |
| R390    | RESISTOR FXD | 47K         | 100-0075-00 |
| R391    | RESISTOR FXD | 4.7K        | 100-0070-00 |
| R392    | RESISTOR FXD | 47K         | 100-0075-00 |
| R393    | RESISTOR FXD | 4.7K        | 100-0070-00 |
| R394    | RESISTOR FXD | 220 OHM     | 100-0051-00 |
| R395    | RESISTOR FXD | 4.7K        | 100-0070-00 |
| R396    | RESISTOR FXD | 47K         | 100-0075-00 |
| R397    | RESISTOR FXD | 47K         | 100-0075-00 |
| R398    | RESISTOR FXD | 47K         | 100-0075-00 |
| R399    | RESISTOR FXD | 4.7K        | 100-0070-00 |
| R400    | RESISTOR FXD | 220 OHM     | 100-0051-00 |

| PART NO | PART NAME             | DESCRIPTION | MATERIAL NO |
|---------|-----------------------|-------------|-------------|
| R401    | RESISTOR FXD          | 47K         | 100-0075-00 |
| R402    | RESISTOR FXD          | 47K         | 100-0075-00 |
| R403    | RESISTOR FXD          | 100 OHM     | 100-0026-00 |
| R404    | RESISTOR FXD          | 47 OHM      | 100-0076-00 |
| R405    | RESISTOR FXD          | 47K         | 100-0075-00 |
| R406    | RESISTOR FXD          | 47 OHM      | 100-0076-00 |
| R407    | RESISTOR FXD          | 1K          | 100-0042-00 |
| R408    | RESISTOR FXD          | 1K          | 100-0042-00 |
| R409    | RESISTOR FXD          | 1K          | 100-0042-00 |
| R410    | RESISTOR FXD          | 180 OHM     | 100-0039-00 |
| R411    | RESISTOR FXD          | 820 OHM     | 100-0094-00 |
| R412    | RESISTOR FXD          | 180 OHM     | 100-0039-00 |
| R413    | RESISTOR FXD          | 1K          | 100-0042-00 |
| R414    | RESISTOR FXD          | 47K         | 100-0075-00 |
| R415    | RESISTOR FXD          | 470K        | 100-0073-00 |
| R416    | RESISTOR FXD          | 10K         | 100-0027-00 |
| R417    | RESISTOR FXD          | 470K        | 100-0073-00 |
| R418    | RESISTOR FXD          | 47 OHM      | 100-0076-00 |
| R419    | RESISTOR FXD          | 470 OHM     | 100-0074-00 |
| R420    | RESISTOR FXD          | 47 OHM      | 100-0076-00 |
| R421    | RESISTOR FXD          | 560 OHM     | 100-0081-00 |
| R422    | RESISTOR FXD          | 220K        | 100-0050-00 |
| R423    | RESISTOR FXD          | 47K         | 100-0075-00 |
| R424    | RESISTOR FXD          | 470K        | 100-0073-00 |
| R425    | RESISTOR FXD          | 47K         | 100-0075-00 |
| R426    | RESISTOR FXD          | 47K         | 100-0075-00 |
| R427    | RESISTOR FXD          | 47 OHM      | 100-0076-00 |
| R428    | RESISTOR FXD          | 47 OHM      | 100-0076-00 |
| R429    | RESISTOR FXD          | 390 OHM     | 100-0068-00 |
| R430    | RESISTOR FXD          | 220 OHM     | 100-0051-00 |
| R431    | RESISTOR FXD          | 1K          | 100-0042-00 |
| R432    | RESISTOR FXD          | 390 OHM     | 100-0068-00 |
| R433    | RESISTOR FXD          | 470 OHM     | 100-0074-00 |
| R434    | RESISTOR FXD          | 270 OHM     | 100-0378-00 |
| R435    | RESISTOR FXD          | 270 OHM     | 100-0378-00 |
| R436    | RESISTOR FXD          | 180 OHM     | 100-0039-00 |
| R437    | RESISTOR FXD          | 2.2K        | 100-0044-00 |
| R438    | RESISTOR FXD          | 2.2K        | 100-0044-00 |
| R439    | RESISTOR FXD          | 470 OHM     | 100-0074-00 |
| R440    | RESISTOR FXD          | 100 OHM     | 100-0026-00 |
| R442    | RESISTOR FXD          | 150 OHM     | 100-0036-00 |
| R443    | RESISTOR FXD          | 4.7K        | 100-0070-00 |
| R444    | RESISTOR FXD          | 22K         | 100-0052-00 |
| R445    | RESISTOR FXD          | 100 OHM     | 100-0026-00 |
| R446    | RESISTOR FXD          | 100 OHM     | 100-0026-00 |
| R447    | RESISTOR FXD          | 1.2K        | 100-0022-00 |
| R448    | RESISTOR FXD          | 47 OHM      | 100-0076-00 |
| R449    | RESISTOR FXD          | 10K         | 100-0027-00 |
| R452    | RESISTOR FXD          | 470 OHM     | 100-0074-00 |
| R453    | RESISTOR FXD          | 0 OHM       | 100-0021-00 |
| R454    | RESISTOR FXD          | 0 OHM       | 100-0021-00 |
| R455    | RESISTOR FXD          | 8.2K        | 100-0092-00 |
| R456    | RESISTOR FXD          | 4.7K        | 100-0070-00 |
| R457    | RESISTOR FXD          | 8.2K        | 100-0092-00 |
| R458    | RESISTOR FXD          | 4.7K        | 100-0070-00 |
| R500    | RESISTOR FXD          | 1 OHM       | 100-0028-01 |
| R501    | RESISTOR FXD          | 2.2K        | 100-0044-00 |
| R502    | RESISTOR FXD          | 47K         | 100-0075-00 |
| R503    | RESISTOR FXD          | 470 OHM     | 100-0074-00 |
| RV301   | RESISTOR VAR 3 $\phi$ | 10K         | 102-0005-00 |
| RV302   | RESISTOR VAR 3 $\phi$ | 10K         | 102-0005-00 |
| RV303   | RESISTOR VAR 3 $\phi$ | 300 OHM     | 102-0024-00 |

| PART NO | PART NAME             | DESCRIPTION           | MATERIAL NO |
|---------|-----------------------|-----------------------|-------------|
| RV304   | RESISTOR VAR 3 $\phi$ | 300 OHM               | 102-0024-00 |
| T301    | RF XFMR               | H-6LHPC00016 CBM33    | 123-0033-00 |
| T302    | RF XFMR               |                       | 123-0034-00 |
| T303    | RF XFMR               |                       | 123-0035-00 |
| T304    | RF XFMR               |                       | 123-0035-00 |
| T305    | RF XFMR               |                       | 123-0036-00 |
| TR301   | TRANSISTOR            | 3SK131-V12            | 131-0165-00 |
| TR302   | TRANSISTOR            | 3SK131-V12            | 131-0165-00 |
| TR303   | TRANSISTOR            | 3SK131-V12            | 131-0165-00 |
| TR304   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR305   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR306   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR307   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR308   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR309   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR310   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR311   | TRANSISTOR            | UN9111-TX             | 131-0163-00 |
| TR312   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR313   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR314   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR315   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR316   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR317   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR318   | TRANSISTOR            | 2SC4184               | 131-0164-00 |
| TR319   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR320   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR321   | TRANSISTOR            | 3SK131-V12            | 131-0165-00 |
| TR322   | TRANSISTOR            | 3SK131-V12            | 131-0165-00 |
| TR323   | TRANSISTOR            | 2SC2407               | 131-0166-00 |
| TR324   | TRANSISTOR            | 2SC1947               | 131-0167-00 |
| TR325   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR326   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR327   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR328   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR329   | TRANSISTOR            | 2SC1971               | 131-0029-00 |
| TR331   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR333   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR335   | TRANSISTOR            | UN9211-TX             | 131-0159-00 |
| TR330   | TRANSISTOR            | RT1P434M              | 131-0108-00 |
| TR332   | TRANSISTOR            | RT1P434M              | 131-0108-00 |
| TR334   | TRANSISTOR            | RT1P434M              | 131-0108-00 |
| X301    | CRYSTAL               | 21.5MHZ               | 150-0037-00 |
| XD301   | FILTER                | CDBC450CX35-TC 450KHZ | 152-0042-00 |

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e., shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

#### 15.27(a) SPECIAL ACCESSORIES.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### 15.21 INFORMATION TO USER.

THE APPLICANT HAS BEEN CAUTIONED AS TO THE FOLLOWING: